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December 15, 2005

Matt Schultz  
MCS Environmental, Inc.  
6505 216th Street SW, Suite 100  
Mount Lake Terrace, WA 98043

Re: Analytical Data for Project 360090.004  
Laboratory Reference No. 0512-082

Dear Matt:

Enclosed are the analytical results and associated quality control data for samples submitted on December 13, 2005.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB', followed by a horizontal line.

David Baumeister  
Project Manager

Enclosures

Date of Report: December 15, 2005  
Samples Submitted: December 13, 2005  
Laboratory Reference: 0512-082  
Project: 360090.004

### **Case Narrative**

Samples were collected on December 13, 2005 and received by the laboratory on December 13, 2005. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Dx Analysis

The pattern of peaks present in the diesel range of sample 815 Comp1 is indicative of transformer oil.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 15, 2005  
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### NWTPH-Dx

Date Extracted: 12-13-05  
 Date Analyzed: 12-13-05

Matrix: Soil  
 Units: mg/kg (ppm)

Client ID:	W-2 1500 Bottom	W-2 1500 Sides	815 Comp 1
Lab ID:	12-082-01	12-082-02	12-082-04
Diesel Range:	ND	ND	54
PQL:	28	28	28
Identification:	---	---	Diesel Range Organics
Lube Oil Range:	ND	ND	91
PQL:	55	56	56
Identification:	---	---	Lube Oil
Surrogate Recovery			
o-Terphenyl:	93%	101%	103%
Flags:	Y	Y	Y,Z

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**NWTPH-Dx**  
**METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-13-05  
Date Analyzed: 12-13-05

Matrix: Soil  
Units: mg/kg (ppm)

Lab ID: MB1213S1

Diesel Range: **ND**  
PQL: 25  
Identification: ---

Lube Oil Range: **ND**  
PQL: 50  
Identification: ---

Surrogate Recovery  
o-Terphenyl: 119%

Flags: Y

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**NWTPH-Dx**  
**DUPLICATE QUALITY CONTROL**

Date Extracted: 12-13-05  
Date Analyzed: 12-13-05

Matrix: Soil  
Units: mg/kg (ppm)

Lab ID: 12-064-02 12-064-02 DUP

Diesel Range: **ND** **ND**  
PQL: 25 25

RPD: N/A

Surrogate Recovery  
o-Terphenyl: 106% 113%

Flags: Y Y

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### PAHs by EPA 8270C/SIM

Date Extracted: 12-14-05  
 Date Analyzed: 12-15-05  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: 12-082-03  
 Client ID: 815 COMP2

Compound:	Results	Flags	PQL
Naphthalene	ND		0.073
2-Methylnaphthalene	ND		0.073
1-Methylnaphthalene	ND		0.073
Acenaphthylene	ND		0.073
Acenaphthene	0.11		0.073
Fluorene	0.099		0.073
Phenanthrene	1.1		0.073
Anthracene	0.40		0.073
Fluoranthene	1.9		0.073
Pyrene	2.1		0.073
Benzo[a]anthracene	1.1		0.073
Chrysene	1.4		0.073
Benzo[b]fluoranthene	0.84		0.073
Benzo[k]fluoranthene	0.34		0.073
Benzo[a]pyrene	0.67		0.073
Indeno(1,2,3-c,d)pyrene	0.21		0.073
Dibenz[a,h]anthracene	0.083		0.073
Benzo[g,h,i]perylene	0.24		0.073

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	81	27 - 107
2-Fluorobiphenyl	85	33 - 100
Terphenyl-d14	93	55 - 106

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**PAHs by EPA 8270C/SIM  
 METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-14-05  
 Date Analyzed: 12-14-05  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: MB1214S1

<b>Compound:</b>	<b>Results</b>	<b>Flags</b>	<b>PQL</b>
Naphthalene	ND		0.0067
2-Methylnaphthalene	ND		0.0067
1-Methylnaphthalene	ND		0.0067
Acenaphthylene	ND		0.0067
Acenaphthene	ND		0.0067
Fluorene	ND		0.0067
Phenanthrene	ND		0.0067
Anthracene	ND		0.0067
Fluoranthene	ND		0.0067
Pyrene	ND		0.0067
Benzo[a]anthracene	ND		0.0067
Chrysene	ND		0.0067
Benzo[b]fluoranthene	ND		0.0067
Benzo[k]fluoranthene	ND		0.0067
Benzo[a]pyrene	ND		0.0067
Indeno(1,2,3-c,d)pyrene	ND		0.0067
Dibenz[a,h]anthracene	ND		0.0067
Benzo[g,h,i]perylene	ND		0.0067

<b>Surrogate :</b>	<b>Percent Recovery</b>	<b>Control Limits</b>
Nitrobenzene-d5	71	27 - 107
2-Fluorobiphenyl	75	33 - 100
Terphenyl-d14	101	55 - 106

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**PAHs by EPA 8270C/SIM  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-14-05

Date Analyzed: 12-14-05

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-064-01

Compound:	Sample Amount	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	Recovery Limits	Flags
Naphthalene	ND	0.0833	0.0639	77	0.0618	74	30-115	
Acenaphthylene	ND	0.0833	0.0762	91	0.0732	88	46-125	
Acenaphthene	ND	0.0833	0.0728	87	0.0694	83	40-119	
Fluorene	ND	0.0833	0.0707	85	0.0676	81	50-133	
Phenanthrene	0.0120	0.0833	0.0829	85	0.0868	90	48-128	
Anthracene	ND	0.0833	0.0738	89	0.0728	87	53-134	
Fluoranthene	0.0175	0.0833	0.0972	96	0.102	102	50-143	
Pyrene	0.0175	0.0833	0.0952	93	0.100	99	44-139	
Benzo[a]anthracene	0.00736	0.0833	0.0861	95	0.0852	93	62-129	
Chrysene	0.0121	0.0833	0.0929	97	0.0909	95	42-127	
Benzo[b]fluoranthene	0.0173	0.0833	0.0937	92	0.0933	91	57-132	
Benzo[k]fluoranthene	ND	0.0833	0.0783	94	0.0779	94	57-131	
Benzo[a]pyrene	0.0115	0.0833	0.0901	94	0.0832	86	59-132	
Indeno(1,2,3-c,d)pyrene	0.0130	0.0833	0.0828	84	0.0799	80	55-135	
Dibenz[a,h]anthracene	ND	0.0833	0.0751	90	0.0692	83	36-146	
Benzo[g,h,i]perylene	0.0234	0.0833	0.110	104	0.0965	88	42-140	

	RPD	RPD Limit	Flags
Naphthalene	3	25	
Acenaphthylene	4	25	
Acenaphthene	5	25	
Fluorene	4	25	
Phenanthrene	5	25	
Anthracene	1	25	
Fluoranthene	5	25	
Pyrene	5	25	
Benzo[a]anthracene	1	25	
Chrysene	2	25	
Benzo[b]fluoranthene	0	25	
Benzo[k]fluoranthene	0	25	
Benzo[a]pyrene	8	25	
Indeno(1,2,3-c,d)pyrene	4	25	
Dibenz[a,h]anthracene	8	25	
Benzo[g,h,i]perylene	13	25	



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### PCBs by EPA 8082

Date Extracted: 12-14-05

Date Analyzed: 12-14-05

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-082-03

Client ID: **815 Comp 2**

	<b>Result</b>	<b>PQL</b>
Aroclor 1016:	<b>ND</b>	0.055
Aroclor 1221:	<b>ND</b>	0.055
Aroclor 1232:	<b>ND</b>	0.055
Aroclor 1242:	<b>ND</b>	0.055
Aroclor 1248:	<b>ND</b>	0.055
Aroclor 1254:	<b>ND</b>	0.055
Aroclor 1260:	<b>ND</b>	0.055

	<b>Percent Recovery</b>	<b>Control Limits</b>
<b>Surrogate</b> Decachlorobiphenyl	97	41-128

Flags:

Date of Report: December 15, 2005  
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**PCBs by EPA 8082  
 METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-14-05

Date Analyzed: 12-14-05

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB1214S1

	<b>Result</b>	<b>PQL</b>
Aroclor 1016:	<b>ND</b>	0.050
Aroclor 1221:	<b>ND</b>	0.050
Aroclor 1232:	<b>ND</b>	0.050
Aroclor 1242:	<b>ND</b>	0.050
Aroclor 1248:	<b>ND</b>	0.050
Aroclor 1254:	<b>ND</b>	0.050
Aroclor 1260:	<b>ND</b>	0.050

	<b>Percent Recovery</b>	<b>Control Limits</b>
<b>Surrogate</b> Decachlorobiphenyl	103	41-128

Flags:

Date of Report: December 15, 2005  
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**PCBs by EPA 8082  
 SB/SBD QUALITY CONTROL**

Date Extracted: 12-14-05

Date Analyzed: 12-14-05

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: SB1214S1

Spike Level: 0.500

	<b>SB</b>	<b>Percent Recovery</b>	<b>SBD</b>	<b>Percent Recovery</b>	<b>RPD</b>
Aroclor 1260:	0.543	109	0.567	113	4
PQL	0.050		0.050		

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Percent Recovery</b>	<b>Control Limits</b>
Decachlorobiphenyl	106	106	41-128

Flags:

Date of Report: December 15, 2005  
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### **% MOISTURE**

Date Analyzed: 12-13&14-05

Client ID	Lab ID	% Moisture
W-2 1500 Bottom	12-082-01	9
W-2 1500 Sides	12-082-02	10
815 Comp 2	12-082-03	9
815 Comp 1	12-082-04	10



### Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical \_\_\_\_\_.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z - The pattern of peaks present in the diesel range is indicative of transformer oil.

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference



## Page \_\_\_\_\_ of \_\_\_\_\_

Company: **MS ENVIDON MEDIA**

Project Number: **360090.004**

Project Name: **GSA Auburn**

Project Manager: **MATT SCHWARTZ**

Sampled by: **MATT SCHWARTZ**

**Turnaround Request**  
(in working days)

**Laboratory Number:** 12-082

(Check One)

☐ Same Day ☒ 1 Day☐ 2 Day ☒ 3 Day☐ Standard (7 working days)☐ \_\_\_\_\_ (other)

### Requested Analysis

[illegible]

Signature	Company	Date	Time	Comments/Special Instructions:
Relinquished by	MCS ENVIRONMENTAL	12/13/05	1536	<p>DIESEL #2 in Two W-2 Samples</p> <p>DIESEL #1 No. 5 fuel oil in 815 samples</p>
Received by	Site Env	12/13/05	1536	
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date	Reviewed by/Date	Chromatograms with final report <input type="checkbox"/>		

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